

| | |
|---|----|
| Symbols Used in This Document | 3 |
| Bring Tools and Materials | 4 |
| Conduit and Anchor Bolt Locations | 4 |
| Upgrade Paths Between Stations | 9 |
| Assemble the DC Universal CMT | 10 |
| Install the DC Universal CMT | 11 |

IMPORTANT SAFETY INSTRUCTIONS: SAVE THESE INSTRUCTIONS



WARNING:

- 1. Read and follow all warnings and instructions before installing and operating the ChargePoint® Charging Station.** Install and operate only as instructed. Failure to do so may lead to death, injury or property damage and will void the Limited Warranty.
- 2. Only use licensed professionals to install your ChargePoint charging station and adhere to all national and local building codes and standards.** Before installing the ChargePoint® charging station, consult with a licensed contractor, such as a licensed electrician, and use a trained installation expert to ensure that compliance with local building and electrical codes and standards, climate conditions, safety standards and all applicable codes and ordinances. Inspect the charging station for proper installation before use.
- 3. Always ground the ChargePoint charging station.** Failure to ground the charging station can lead to risk of electrocution or fire. The charging station must be connected to a grounded, metal, permanent wiring system or an equipment grounding conductor shall be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE must comply with all applicable codes and ordinances.
- 4. Install the ChargePoint charging station on a concrete pad using a ChargePoint-approved method.** Failure to install on a surface that can support the full weight of the charging station can result in death, personal injury or property damage. Inspect the charging station for proper installation before use.
- 5. This charging station is not suitable for use in or around hazardous locations, such as near flammable, explosive or combustible materials.**
- 6. Do not use this product if the enclosure, EV cable or the EV connector is broken, cracked, open or shows any other indication of damage.**
- 7. Do not put fingers into the electric vehicle connector.**
- 8. This device should be supervised when used around children.**



Important: Under no circumstances will compliance with the information in this manual relieve the user of their responsibility to comply with all applicable codes or safety standards. This document describes the most commonly used installation and mounting scenarios. If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact ChargePoint, Inc. **ChargePoint, Inc. is not responsible for any damage that may result from custom installations that are not described in this document or for any failure to adhere to installation recommendations.**

Product Disposal

To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union. Enquire with local authorities regarding proper disposal. Product materials are recyclable as marked.



No Accuracy Guarantee

Commercially reasonable efforts were made to ensure that the specifications and other information in this manual are accurate and complete at the time of its publication. However, the specifications and other information in this manual are subject to change at any time without prior notice.

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Symbols Used in This Document

This guide and product use the following symbols:



DANGER: Risk of electric shock.



WARNING: Risk of personal harm or death.



CAUTION: Risk of equipment or property damage.



Important: Crucial step for installation success.

Introduction

The ChargePoint DC Universal CMT is a Concrete Mounting Template (CMT) that supports three different ChargePoint DC fast charging stations for electric vehicles:

- Express 250 (Standalone or Paired configurations)
- DC Dispenser
- Express Plus Station

A default station installation requires service wiring to be installed underground and run to a concrete pad. The ChargePoint DC Universal CMT correctly aligns anchor bolts and conduit openings to ensure that the station can be easily installed and connected.

Each ChargePoint DC fast charging station provides DC power to charge electric vehicles. A separate CMT is required for each charging station.



WARNING: Use of a ChargePoint-approved mounting method, such as the DC Universal CMT, is required for safe installation of the charging station. Failure to use an approved mounting method may result in a risk of tip-over, which can cause death, personal injury or property damage, and will void the Limited One-Year Parts Exchange Warranty.



Important: The locations of wiring conduit and anchor bolts are different for each of the three supported stations. Always refer to the site drawings for conduit and wiring details.

Note: If a site requires surface mounting, do not use this mounting template. Contact ChargePoint before beginning work to obtain an approved Surface Conduit Entry Kit for that station type.

The DC Universal CMT kit available from ChargePoint includes:

- CMT metal template
- 16-mm thread, 305-mm long threaded mounting bolts with plastic caps on one end (x4)
- M16 nuts (x8)
- M16 washers (x8)

An example cross section of the CMT in a concrete pad is shown below:

- a.** Various conduit (location varies by station)
- b.** Anchor bolts (x4)
- c.** Concrete surface, 51 mm (2 in) above CMT top plate
- d.** Concrete Mounting Template



Note: The depth of conduit or armoured cable may vary by site. Images do not dictate conduit depth, as long as the stub-ups are vertical and placed correctly.

Bring Tools and Materials

In addition to the DC Universal CMT kit, the site construction team needs:

- Digging tools (shovel, spade etc.)
- Materials to prepare the form for pouring concrete
- Concrete as specified by site drawings
- Rebar as specified by site drawings
- 24-mm wrenches (x2)
- Pliers to adjust the guide fingers on the CMT conduit openings
- Level
- Cut-resistant gloves and eye protection
- Conduit, ducting or armoured cable in the amounts and types specified by site drawings, that complies with local code (see the rest of this document for conduit sizes and routing)

Refer to the Site Design Guide for the applicable station(s) for full site construction requirements, pad specifications and conductor specifications if needed.

Conduit and Anchor Bolt Locations

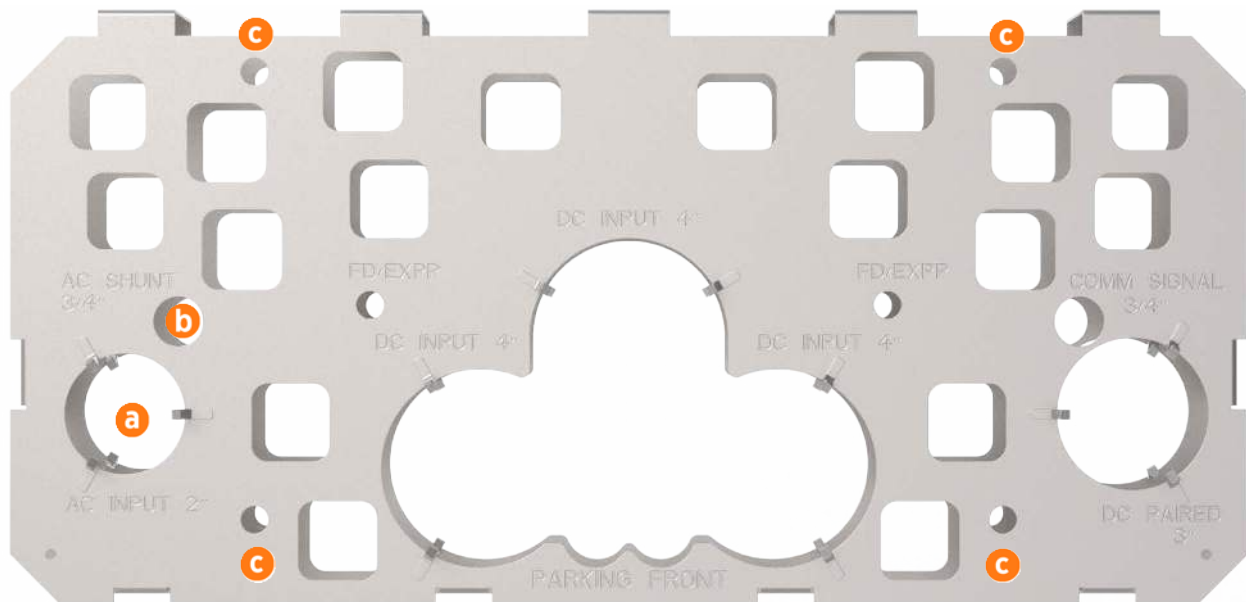
Refer to the sections below per station type to configure conduit size, conduit location and anchor bolts. All stations use four anchor bolts. In every case, round openings indicate conduit or bolt locations. Square openings are only for concrete embedment and tie-off points to secure the CMT in place.

Note: Ensure that no bell ends are left on any conduit after all wires are pulled. Bell ends can interfere with station placement.

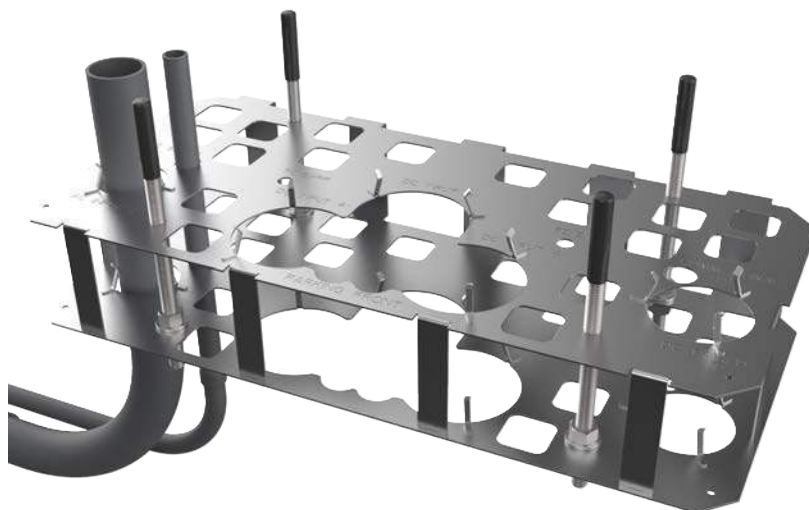
Express 250, Standalone

Each Express 250 station requires AC power input from the site's electrical panel (callout a in the image below). A ground conductor also runs in the AC conduit (a). Optional shunt trip wiring can be run from the station to the breaker panel if included on the site drawings (b). Express 250 anchor bolts are positioned at the front and back edges of the CMT (c).

Note: Each Express 250 communicates with ChargePoint using a mobile network. No communication wiring is needed between the station and the building.



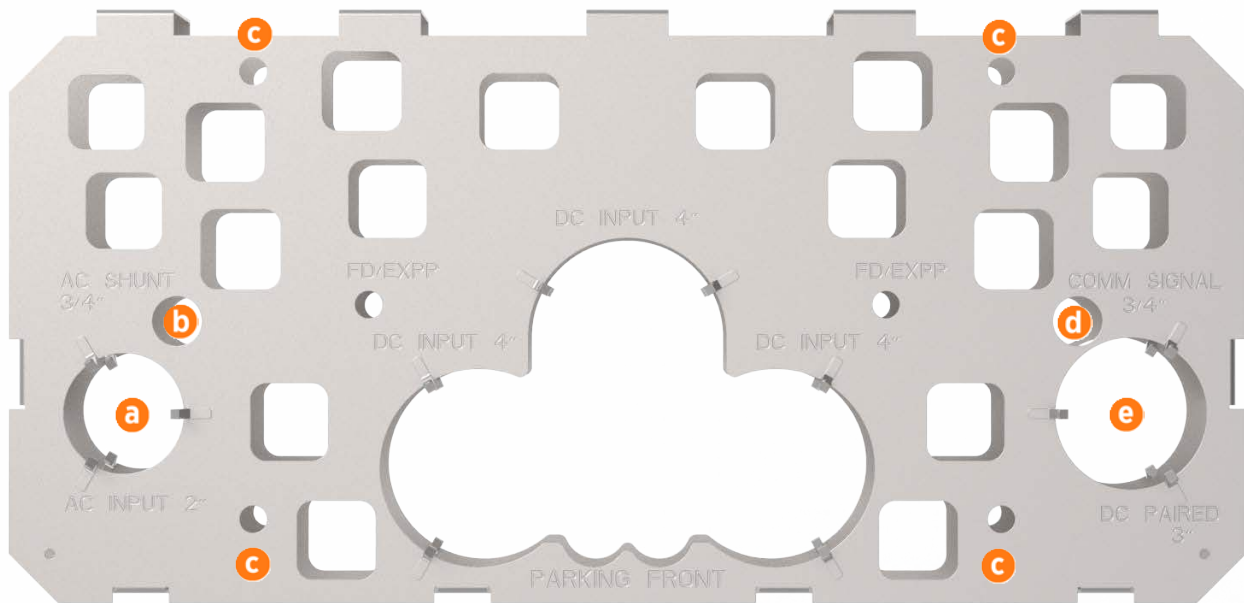
- a.** AC conduit from the left side of each station to the breaker panel (possibly with an AC disconnect switch in the circuit): 50.8 mm (2 inch trade size)
- b.** Optional: shunt trip conduit from the left side of each station to the breaker panel: 19.1 mm (3/4 inch trade size)
- c.** Anchor bolts (x4)



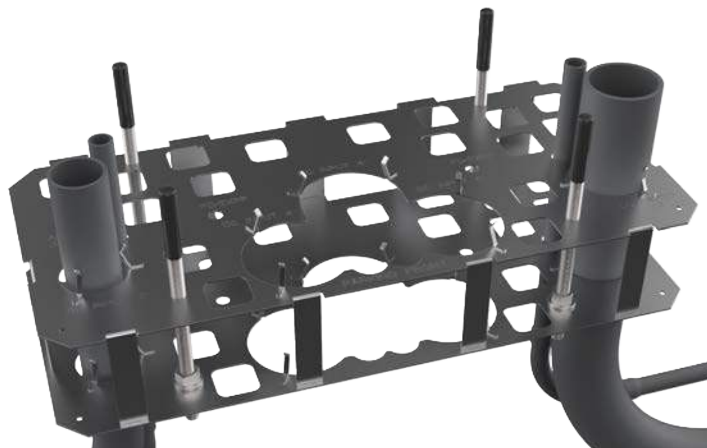
Express 250, Paired

If two Express 250 stations are “paired”, they share DC power to allow faster (higher amperage) charging to a vehicle as needed. In addition to the wiring and anchor bolts shown in the Standalone section above, two extra conduits are run between the stations: an Ethernet wire for communication (d), and DC conductors (e).

Note: Each Express 250 communicates with ChargePoint using a mobile network. No communication wiring is needed between the station and the building.

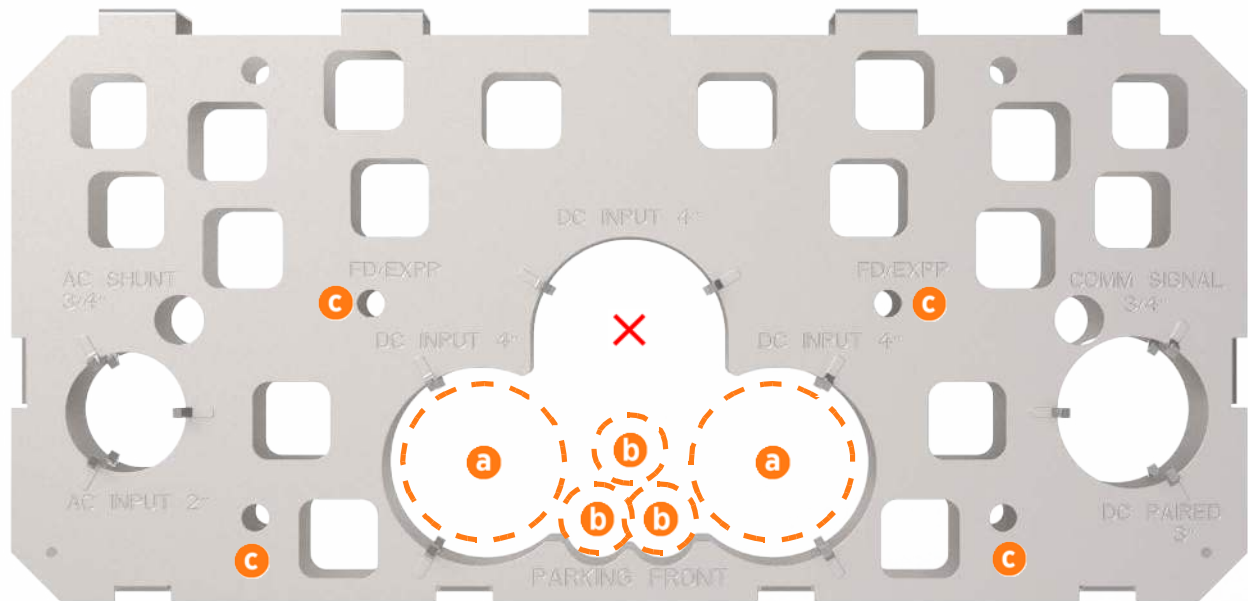


- a.** AC conduit from the left side of each station to the breaker panel (possibly with an AC disconnect switch in the circuit): 50.8 mm (2 inch trade size)
- b.** Optional: shunt trip conduit from the left side of each station to the breaker panel: 19.1 mm (3/4 inch trade size)
- c.** Anchor bolts (x4)
- d.** Ethernet conduit between the two stations to be paired, right side to right side: 19.1 mm (3/4 inch trade size)
- e.** DC conduit between the two stations, right side to right side: 76.2 mm (3 inch trade size)



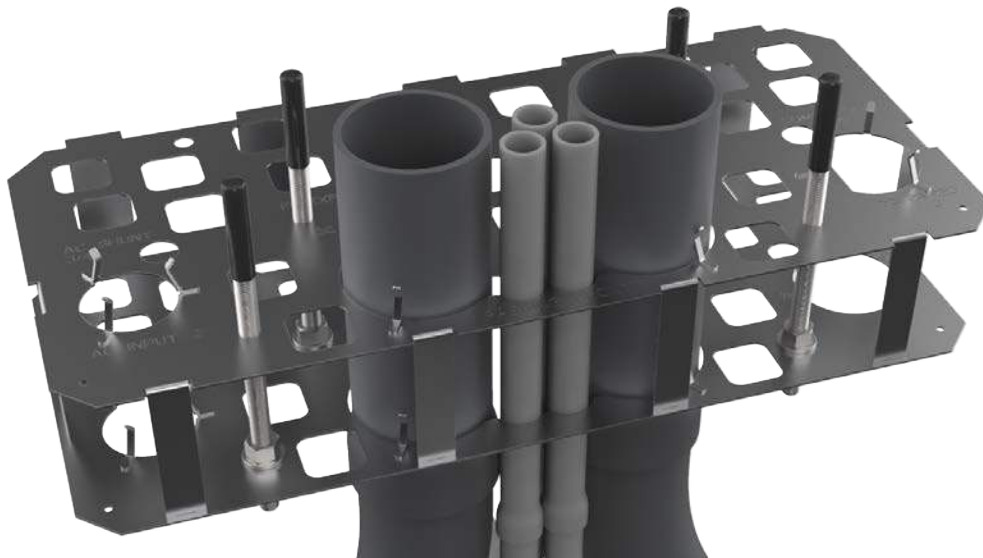
DC Dispenser

The DC Dispenser receives DC input from an upstream component called a Power Block that centralises AC to DC power conversion for multiple stations. DC Dispenser anchor bolts are positioned at the centre and the front edge of the CMT (c).



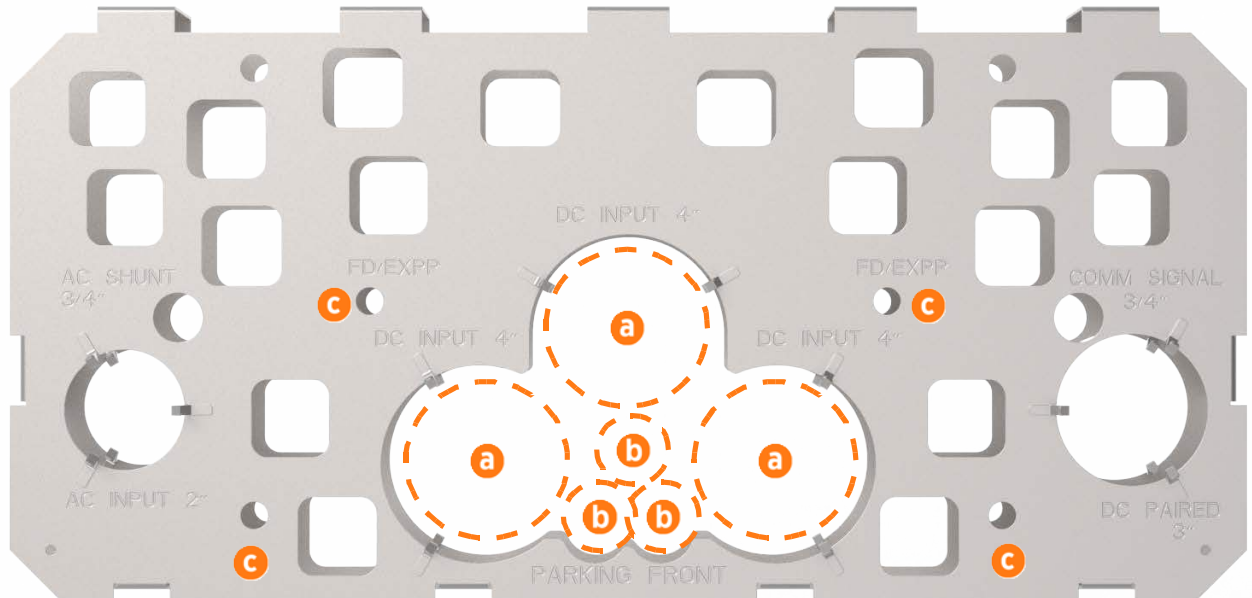
- a.** DC input from a Power Block to the middle of each station: maximum 102 mm (4 inch trade size) (x2)
- b.** 48 VDC or Ethernet from a Power Block to the front edge of each station: maximum 25 mm (1 inch trade size) (up to three conduits)
- c.** Anchor bolts (x4)

Note: Do not use the DC input cutout in the centre of the CMT for a DC Dispenser. Position the two DC input conduits in the cutouts on the front edge.

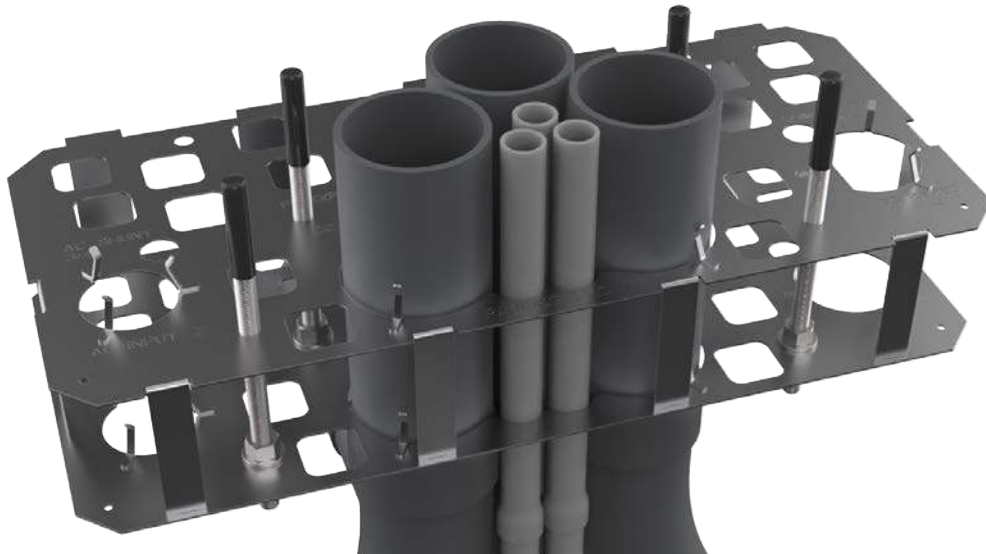


Express Plus Station

The Express Plus stations receive DC input from an upstream component called a Power Block that centralises AC to DC power conversion for multiple stations. Express Plus Station anchor bolts are positioned at the centre and the front edge of the CMT (c).



- a.** DC input from a Power Block to the middle of each station: maximum 102 mm (4 inch trade size) (up to three)
- b.** 48 VDC or Ethernet from a Power Block to the front edge of each station: maximum 25 mm (1 inch trade size) (up to three conduits)
- c.** Anchor bolts (x4)



Upgrade Paths Between Stations

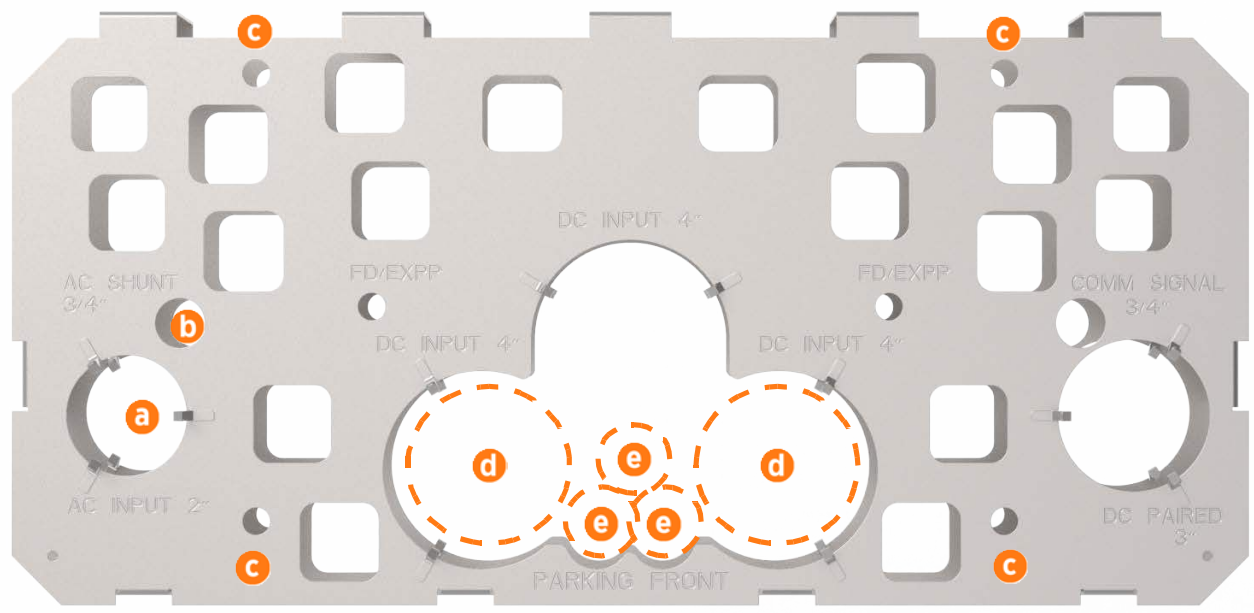
The DC Universal CMT supports future upgrades from an Express 250 to a DC Dispenser, a DC Dispenser to an Express Plus Station or an Express 250 to an Express Plus Station.

For any station that is intended to be removed and replaced by a future ChargePoint station:

1. Install anchor bolts in the CMT in the correct position for the current station only.
2. Install ALL conduits for both current AND future stations in the concrete now. Future conduit stub-ups must stick up 25 mm (1 in) above grade, but not higher than 33 mm (1.3 in), to prevent interference with the current station.
3. Do not pull future wires until the stations are being exchanged.

In the future, when the station is swapped, the old anchor bolts and stub-ups can be cut to grade level if required, and new anchor bolts can be drilled and epoxied in place using a separate ChargePoint template. Refer to the Installation Guide for the new station being installed at that time.

For example, an installation for an Express 250 standalone that intends to upgrade to a DC Dispenser would install the following anchor bolts and possible conduit locations, according to site drawings:



- Express 250 AC
- Express 250 shunt trip
- Express 250 anchor bolts
- Future DC Dispenser DC input
- Future DC Dispenser 48 V/Ethernet locations

Assemble the DC Universal CMT



CAUTION: The CMT has sharp edges. Wear cut-resistant gloves.

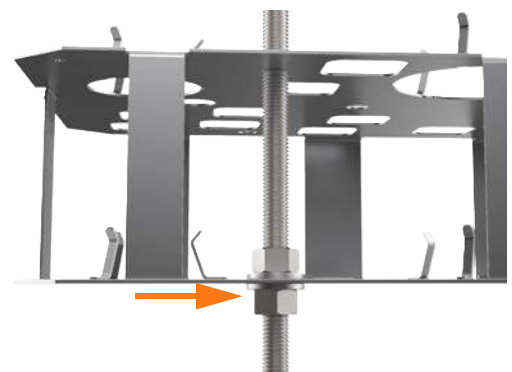
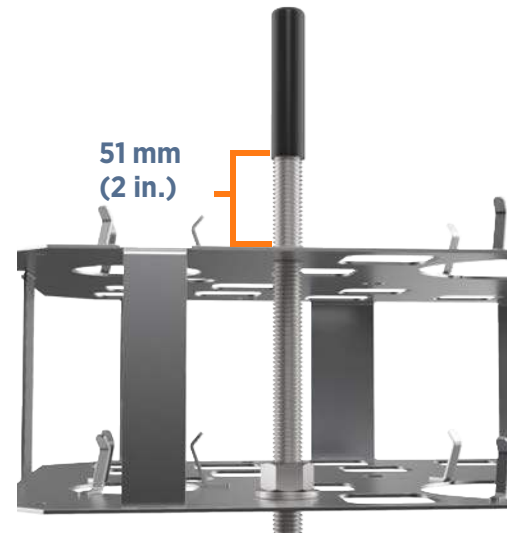
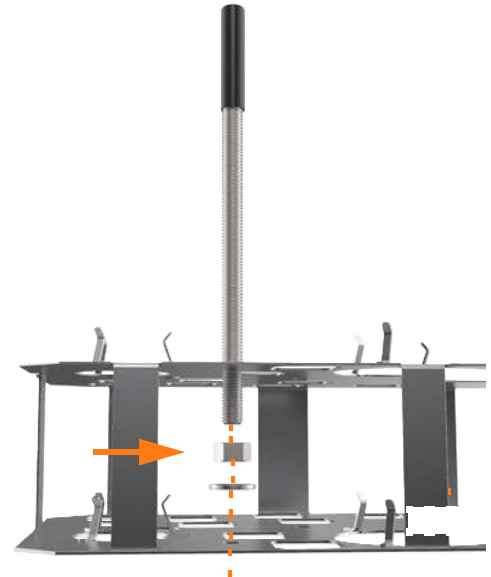
Before pouring concrete, assemble the CMT with its anchor bolts, washers and nuts. Refer to the diagrams above for the correct anchor bolt locations per station.

1. Holding a mounting bolt by its plastic cap, insert the bare end into a corner bolt hole in the top plate of the template.
2. Before inserting the bolt through the bottom plate of the template, thread a nut onto the bolt and add a washer as shown.
3. Ensure that the plastic cap is pressed fully down on the bolt. Leave this cap on to protect the threads until the Express 250 is being installed.

4. Holding the bottom nut and washer flush against the top surface of the bottom plate, thread the bolt onto the nut until the distance between the bottom of the plastic cap and the surface of the top plate is 51 mm (2 in.).
5. Repeat Steps 1 to 4 for the remaining three corner bolts.

Note: Do not insert bolts into the centre two holes. Only the four corner bolts are required for system stability.

6. Secure a second washer and nut onto the bottom of each bolt until it is flush with the bottom surface of the bottom plate. Torque each nut to 5.6 Nm (50 in-lb).



Install the DC Universal CMT



WARNING: Failure to install the ChargePoint® charging station in accordance with these instructions and all local building practices, climate conditions, safety standards and all applicable codes and ordinances may lead to risk of death, injury or property damage, and will void the Limited One-Year Parts Exchange Warranty.

1. Trench and excavate an opening to accommodate the wiring conduit and the concrete mounting pad that meets local codes and requirements, per site drawings.
2. Run conduit to each station per site drawings.
3. Build the form and lay rebar for the foundation.



Important: It is critical that the conduits are positioned properly and plumb. The tolerance where the conduits enter the station is 2 mm (1/16 in).

4. Place the assembled CMT so that the “PARKING FRONT” marking aligns with the specified front of the station, with the conduit guide fingers facing up.
5. Slide the CMT over the conduit stub-ups until the top surface of the template is positioned 51 mm (2 in) below where the top surface of the concrete will be when poured. The surface of the concrete must align with the bottom of the plastic caps.
 - Carefully press the CMT down onto the conduit to avoid flexing it.
 - Ensure that the conduits are plumb.
 - Use a level to check that the CMT is level from front to back and from side to side.
6. Tie or shim the CMT to the rebar to prevent movement during concrete pouring.



Important: Before pouring concrete, the CMT and the conduit must be secured in place to prevent them from rising or floating out of position while the concrete is poured and curing. Use square openings in the CMT for securing its height, not round openings, to prevent future interference.

7. Pour the concrete.

Note: Make sure that the concrete surface between the conduits is completely level and free of any irregularities.

Warranty Information and Disclaimer

The Warranty you received with your Charging Station is subject to certain exceptions and exclusions. For example, your use of, or modification to, the ChargePoint® Charging Station in a manner in which the ChargePoint® Charging Station is not intended to be used or modified will void the limited warranty. You should review your warranty and become familiar with the terms thereof. Other than any such limited warranty, the ChargePoint products are provided “AS IS”, and ChargePoint, Inc. and its distributors expressly disclaim all implied warranties, including any warranty of design, merchantability, fitness for a particular purposes and non-infringement to the maximum extent permitted by law.

Limitation of Liability

CHARGEPOINT IS NOT LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST BUSINESS, LOST DATA, LOSS OF USE OR COST OF COVER INCURRED BY YOU ARISING OUT OF OR RELATED TO YOUR PURCHASE OR USE OF OR INABILITY TO USE THE CHARGING STATION UNDER ANY THEORY OF LIABILITY, WHETHER IN AN ACTION IN CONTRACT, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY, EVEN IF CHARGEPOINT KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY EVENT, THE CUMULATIVE LIABILITY OF CHARGEPOINT FOR ALL CLAIMS WHATSOEVER RELATED TO THE CHARGING STATION WILL NOT EXCEED THE PRICE YOU PAID FOR THE CHARGING STATION. THE LIMITATIONS SET FORTH HEREIN ARE INTENDED TO LIMIT THE LIABILITY OF CHARGEPOINT AND WILL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

US FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference; in which case, you will be required to correct the interference at your own expense.

Important: Changes or modifications to this product that are not authorised by ChargePoint, Inc. could affect the EMC compliance and revoke your authority to operate this product.

Exposure to Radio Frequency Energy: The radiated power output of the 802.11 b/g/n radio and mobile network modem (optional) in this device is below the FCC radio frequency exposure limits for uncontrolled equipment. The aerial of this product, used under normal conditions, is at least 20 cm away from the body of the user. This device must not be co-located or operated with any other aerial or transmitter by the manufacturer, subject to the conditions of the FCC Grant.

FCC/IC Compliance Labels:

Visit chargepoint.com/labels/



chargepoint.com/support

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